

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT¹

PERMITTEE

MGP Ingredients of Illinois, Inc.
Attn: Robert B. Taphorn
1301 South Front Street
Pekin, Illinois 61555

<u>Application No.:</u> 96030115	<u>I.D. No.:</u> 179060AAD
<u>Applicant's Designation:</u>	<u>Date Received:</u> March 1, 1996
<u>Operation of:</u> Wheat Processing and Ethanol Manufacturing	
<u>Date Issued:</u> November 24, 2003	<u>Expiration Date:</u> November 23, 2008
<u>Source Location:</u> 1301 S. Front Street, Pekin, Tazewell County	
<u>Responsible Official:</u> Dave Wilbur, General Manager	

This permit is hereby granted to the above-designated Permittee to OPERATE a Corn Dry Milling & Ethanol Production Plant at 1301 S. Front Street, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Anatoly Belogorsky at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:AB:psj

cc: Illinois EPA, FOS, Region 2
USEPA

¹ This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

² Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

MGP Ingredients of Illinois, Inc.
1301 South Front Street
Pekin, Illinois 61555
309/353-3990

I.D. No.: 179060AAD
Standard Industrial Classification: 2085, Distilled Liquor Other
Than Brandy

1.2 Owner/Parent Company

MGP Ingredients, Inc.
1300 Main Street
Atchison, Kansas 66002

1.3 Operator

MGP Ingredients of Illinois, Inc.
1301 South Front Street
Pekin, Illinois 61555

Contact Person's Name:
Robert B. Tophorn

309/353-3990 ext. 4248

1.4 General Source Description

MGP Ingredients of Illinois, Inc. is located at 1301 South Front Street in Pekin and produces both beverage and fuel grade alcohol, animal feed, powdered starch, and powdered gluten.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BAT	Best Available Technology
Btu	British thermal unit
°C	Degrees Celsius
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
Cd	Cadmium
CEMS	Continuous Emission Monitoring System
cfm	Cubic foot per minute
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
EP	Emission Point/Process
°F	Degrees Fahrenheit
ft	Feet
G	Grams
gal	Gallons
gr	Grains
HAP	Hazardous Air Pollutant
HCl	Hydrogen Chloride
Hg	Mercury
HMIWI	Hospital/Medical/Infectious Waste Incinerator
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
kW	kilowatts
L	liter
LAER	Lowest Achievable Emission Rate
lb	pound
MACT	Maximum Achievable Control Technology
mg	milligram
mmBtu	Million British thermal units
mmscf	Million standard cubic feet
mo	month
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants

NO _x	Nitrogen Oxides
Pb	Lead
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
scf	Standard cubic feet
scm	Standard cubic meters
SO ₂	Sulfur Dioxide
T	Ton
TEQ	Toxic equivalency
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a) (1) and 201.211, as follows:

None

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a) (2) or (a) (3), as follows:

None

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a) (4) through (18), as follows:

- a. Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a) (4)].
- b. Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a) (10)].
- c. Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a) (11)].
- d. Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a) (15)].
- e. Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes,

vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

- f. Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12) (b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 1	Grain Receiving and Handling	N/A	Baghouses; Scrubber
Unit 2	Feed Production	1982, 1994	Baghouses; Cyclones; Scrubbers; Thermal Oxidizer
Unit 3	Gluten Production	1981, 1992, 1994, 1997	Baghouses
Unit 4	Starch Production	1994	Baghouses
Unit 5	Alcohol Production	1993, 1994, 2001	Scrubbers
Unit 6	Alcohol Storage and Load-out	1968, 1995	None
Unit 7	Waste Water Treatment Plant	1970; 1993	Biogas Flare

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM, NO_x and PM₁₀ emissions.

5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
 - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.
 - b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- 5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

- 5.2.5
 - a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
 - b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

5.2.7 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit (with the pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels) upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the

purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	370.90
Sulfur Dioxide (SO ₂)	51.22
Particulate Matter (PM)	173.44
Nitrogen Oxides (NO _x)	106.91
HAP, not included in VOM or PM	---
TOTAL	702.47

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

None

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

5.10 Pending USEPA actions

The USEPA has been reviewing operations and assessing emissions from the ethanol production plants across the country. Such review may be finalized by establishing some source-specific emission limits and/or requirements through Consent Decree or other available enforcement tools. This permit does not reflect this ongoing investigation and does not shield MGP Ingredients of Illinois, Inc. from any requirements that would be applicable for this source as a result of the USEPA actions. This permit shall be revised accordingly, if any additional/new requirements for this particular source will be established by USEPA.

5.11 PM₁₀ Limits

As a part of the proposed settlement of enforcement case, the Illinois EPA and MGP Ingredients of Illinois, Inc. have agreed on establishing limits for certain emission units that will adequately protect NAAQS for PM₁₀ emissions at this area. These limits may be found in Attachment 1 of this permit.

5.12 PSD Permit

On September 10, 2002 the PSD Construction Permit No. 01070069 was issued for equipment consisting of the modification of a new feed dryer system controlled by a combination of cyclones and Eco-Dry system (afterburner) as described in the above referenced application. This Permit is granted based upon and subject to the findings and the following special conditions:

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated there under at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

5.12.1 Findings

- a. MGP Ingredients of Illinois, Inc. has requested a construction permit for a new feed dryer system, at the MGP Pekin manufacturing complex. The dryer reduces moisture from the wet cake from distillation process produced in the mixer. Emissions from the dryer would be controlled by a combination control system, including cyclones and Eco-Dry system.
- b. MGP Ingredients of Illinois, Inc. is located in Pekin Township in Tazewell County. The area is designated attainment for all pollutants.
- c. The new feed dry system will have the potential to emit 16.91 tons/year for particulate matter (PM), 39.42 tons/year for sulfur dioxide (SO₂), nitrogen oxides (NO_x) and volatile organic material (VOM) and 43.80 tons/year of carbon monoxide (CO).
- d. This project is subject to PSD review because it's a significant project for emission of PM and represents a modification to the operation of two existing dryer systems that are potentially subject to PSD. As a project subject to PSD, Best Available Control Technology (BACT) is required for the new feed dryer system.

- e. After reviewing the materials submitted by MGP, the Illinois EPA has determined that the project, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT).
- f. The Illinois EPA has determined that the project, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
- g. A copy of the application and a summary of the Illinois EPA's review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

5.12.2 Standard Condition

Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.

5.12.3 Best Available Control Technology

- a. The new feed dryer system shall be equipped, operated, and maintained with Eco-Dry system or other similar system in which the exhaust from the dryer serves as combustion air for the dryer burner, firing biogas/natural gas only. The new feed dryer system shall be operated and maintained in conformance with good air pollution control practices.
- b. The Eco-Dry system shall be designed, constructed, and maintained to achieve a VOM, NO_x and CO emission rate from new feed dryer system that is no more than 0.15 lb/million Btu for the VOM and NO_x and 0.16 lb/million Btu for the CO.
- c. Emissions of PM and SO₂, from the new feed dryer system shall not exceed 0.01 grains/dscf (0.3 lb/ton dried) and 0.7 lb/ton of dried, respectively. For this purpose PM shall be measured by Method 5 (filterable emission).

Condition 5.12.3 addresses Best Available Control Technology (BACT) for all criteria pollutants emissions as required by Section 165 of the Clean Air Act.

5.12.4 Limitations

- a.
 - i. The new feed dryer is subject to 35 IAC 212.321, which provides that the emission of PM into the atmosphere in any one hour period from any new process emission unit shall not exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
 - ii. The new feed dryer is subject to 35 IAC 212.123(a), which provides that the Permittee shall not cause or allow the emission of smoke or other PM, with an opacity greater than 30 percent into the atmosphere.
- b. The new feed dryer is subject to 35 IAC 214.301, which provide that the Permittee shall not cause or allow emission of sulfur dioxide (SO₂) into the atmosphere from any process emission unit to exceed 2000 ppm.
- c. The new feed dryer is subject to 35 IAC 216.121, which provides that the Permittee shall not cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit, i.e. Eco-Dry system, with actual heat input greater than 2.9MW (10 million Btu/hr) to exceed 200 ppm, corrected to 50 percent excess air.
- d. Emissions from new feed dryer system shall not exceed the following limits:

<u>Pollutants</u>	<u>(Lb/Hr)</u>	<u>(Tons/Year)</u>
PM	3.86	16.91
SO ₂	9.0	39.42
NO _x	9.0	39.42
VOM	9.0	39.42
CO	10.0	43.80

These limits are based on information in the application for maximum operation (8,760 hours/year).

- e. This permit does not authorize changes to the other existing dryers at the source that are not related to this project that would increase the source capacity.

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 1: Grain Receiving and Handling

7.1.1 Description

Grain handling operations consist of the receiving, storage, cleaning, and transfer of various grains used in the production of fuel and beverage grade alcohol and animal feed. Grain is unloaded from either trucks or rail.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 1	Conveyors, Old Dump Pit, Legs, Cleaner, Bins, Elevators, North and South House Tanks	Baghouse 101
	Dust Tank T113	Baghouse 102
	Vacuum System Baghouse	Baghouse 104
	New Dump Pit	Baghouse 151
	Concrete Grain Silo T151	Baghouse 152
	Weigh Belt, Hammer Mills, Grain Mix Tank	Scrubber 251

7.1.3 Applicability Provisions and Applicable Regulations

- a. An affected "grain receiving and handling unit" is an emission unit, described in Conditions 7.1.1 and 7.1.2.
- b. An affected grain receiving and handling unit is subject to requirements of 35 IAC 212.461(b) and 212.462. These requirements are discussed further in this section.

7.1.4 Non-Applicability of Regulations of Concern

35 IAC 212.302(a), 212.321, and 212.322 shall not apply to grain-handling equipment pursuant to 35 IAC 212.461(a).

7.1.5 Operating Requirements and Work Practices

- a. Each affected grain receiving and handling unit is subject to the following housekeeping practices:
 - i. Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.
 - ii. Cleaning and Maintenance.
 - A. Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or

bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.

B. Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.

C. The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.

iii. Dump Pit.

A. Aspiration equipment shall be maintained and operated.

B. Dust control devices shall be maintained and operated.

iv. Head House. The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere.

v. Property. The yard and driveway of any source shall be asphalted, oiled or equivalently treated to control dust.

vi. Housekeeping Check List. Housekeeping check lists to be developed by the Illinois EPA shall be completed by the manager and maintained on the premises for inspection by the Illinois EPA personnel [35 IAC 212.461(b)].

b. Each affected grain receiving and handling unit is subject to the following requirements of 35 IAC 212.462:

i. Cleaning and Separating Operations

A. Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere.

B. For grain-handling sources having a grain through-put exceeding 2 million bushels per year and located within a major population area, air contaminants collected from cleaning and separating

operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.

ii. Major Dump-Pit Area

A. Induced Draft.

1. Induced draft shall be applied to major dump pits and their associated equipment (including, but not limited to, boots, hoppers and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 fpm, which shall be determined by using the equation:

$$V = Q/A$$

where:

V = face velocity; and

Q = induced draft volume in scfm;
and

A = effective grate area in ft²;
and

2. The induced draft air stream for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 98 percent by weight; and
3. Means or devices (including, but not limited to, quick-closing doors, air curtains or wind deflectors) shall be employed to

prevent a wind velocity in excess of 50 percent of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph. The wind velocity shall be measured, with the induced draft system not operating, at a point midway between the dump-pit area walls at the point where the wind exits the dump-pit area, and at a height above the dump-pit area floor of approximately 2 ft; or

4. Any equivalent method, technique, system or combination thereof adequate to achieve, at a minimum, a particulate matter emission reduction equal to the reduction which could be achieved by compliance with 35 IAC 212.462(b)(1).

iii. Internal Transferring Area

- A. Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere.
- B. Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.

iv. Load-Out Area

- A. Truck and hopper car loading shall employ socks, sleeves or equivalent devices which extend 6 inches below the sides of the receiving vehicle, except for topping off. Choke loading shall be considered an equivalent method as long as the discharge is no more than 12 inches above the sides of the receiving vehicle.

B. Box car loading shall employ means or devices to prevent the emission of particulate matter into the atmosphere to the fullest extent, which is technologically and economically feasible.

c. Annual grain receipts shall not exceed 35 million bushels.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected grain receiving and handling unit is subject to the following limits:

None

7.1.7 Testing Requirements

None

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected grain receiving and handling unit to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

a. Amount of grain transferred (bushels/tons per month and bushels/tons per year) for the entire group of affected grain receiving and handling units.

b. Emissions calculated based on the procedures established in Condition 7.1.12.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of affected grain receiving and handling unit with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this

permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

- a. Compliance with the PM emission limits established by 35 IAC 212.461 and 212.462 is assured and achieved by the proper operation and maintenance, as required by this section and the work-practices inherent in operation of the affected grain receiving and handling unit.
- b.
$$\text{PM}_{10} \text{ Emissions} = (\text{Air flow, cfm}) \times (\text{Estimated Dust Loading, gr/scf}) \times (1 \text{ lb}/7,000 \text{ gr}) \times (60 \text{ minutes/hr}) \times [100 - (\text{Efficiency, \%})/100]$$

7.2 Unit 2: Feed Production

7.2.1 Description

Feed production operations at MGP Ingredients consist of the production, drying, handling, storage and load-out of feed.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 2	North Bran Tank Unloading Rail Cars	Baghouse 621
	South Bran Tank Unloading Rail Cars	Baghouse 622
	South Bran Tank Unloading Trucks	Baghouse 623
	Unloading Bran from Trucks	Baghouse 624
	Feed Cooler	Baghouse 641
	Feed Barn	Baghouse 690
	South Feed Silo T681	Baghouse 681
	North Feed Silo T682	Baghouse 682A
	North Feed Silo East	Baghouse 682B
	Barge Load-Out and Feed Weigh Belt 681	Baghouse 683
	East Feed Dryer 651	Cyclone and Scrubber 651
	West Feed Dryer 661	Cyclone and Scrubber 661
	Eco-Dryer System - BUR6000	Thermal Oxidizer

7.2.3 Applicability Provisions and Applicable Regulations

- a. An "affected feed production unit" is an emission unit as described in Conditions 7.2.1 and 7.2.2.
- b. Each affected feed production unit is subject to 35 IAC 212.321(b) (1), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 3) [35 IAC 212.321(a)].
- c. The affected feed production unit is subject to 35 IAC 214.301, which provide that the Permittee shall

not cause or allow emission of sulfur dioxide (SO₂) into the atmosphere from any process emission unit to exceed 2000 ppm.

- d. The new feed dryer is subject to 35 IAC 216.121, which provides that the Permittee shall not cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit, i.e. Eco-Dry system, with actual heat input greater than 2.9MW (10 million Btu/hr) to exceed 200 ppm, corrected to 50 percent excess air.

7.2.4 Non-Applicability of Regulations of Concern

Feed dryers are not subject to 35 IAC 215.301, which provides that the Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, because feed dryer system will not handle photochemically reactive material.

7.2.5 Operating Requirements and Work Practices

- a. Good Operating Practices for Eco-Dryer System - BUR6000
 - i. The Permittee shall operate, maintain, and repair the new feed dryer system and its control system in a manner assuring compliance with the requirements of applicable board rules and Conditions 2,3, and 4 by implementing the following procedures.
 - ii. Operating Procedures for the Cyclones: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.
 - iii. Operating Procedures for the Burner System: Written operating practices shall be developed and maintained, including establishment of target levels for the following operating parameters for the Eco-Dry system:
 - A. Combustion chamber temperature,
 - B. Air-fuel mixture, and
 - C. Recirculated air, and secondary air

- b. The Permittee shall follow good operating practices for control devices of other dryers, including periodic inspection, routine maintenance and repair of defects.

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected feed production unit is subject to the following:

Emissions from new feed dryer system shall not exceed the following limits:

<u>Pollutants</u>	<u>(Lb/Hr)</u>	<u>(Tons/Year)</u>
PM	3.86	16.91
SO ₂	9.0	39.42
NO _x	9.0	39.42
VOM	9.0	39.42
CO	10.0	43.80

The above limitations were established in Construction Permit 01070069, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

7.2.7 Testing Requirements

Testing shall be performed in accordance with testing procedures and requirements established in the PSD Permit 01070069.

7.2.8 Monitoring Requirements

The Permittee shall monitor the temperature of the combustion chamber at least hourly, of the Eco-Dry system in accordance with the manufacture specifications.

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected feed production unit to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. Eco-Dry system
 - i. Maximum firing rate of the Eco-Dry system (million Btu/hr);
 - ii. Configuration of the control system (cyclones, Eco-Dry), including bypass of any unit and significant changes in air flow rates or in its usage of units;
 - iii. Dryer throughput based on the daily grind rate for the plant, relative loading of the new and existing dryers and feed moisture levels (output %moisture), recorded at least once per shift;
 - iv. Log of inspection and maintenance of the cyclones and Eco-Dry;
 - v. The Permittee shall maintain records for any period during which the new dryer system was in operation and when its air pollution control equipment was not in operation or was not operating properly:
 - A. These records shall include each period of time when an monitoring parameter of a control system, deviated outside the level set as good air pollution control practice (date, duration and description of the incident);
 - B. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence; and
 - C. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission

limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

- vi. Monthly emissions of PM, NO_x, SO₂, VOM and CO, determined as the summation of the product of the hours of operation and applicable emission rate lb/hr as recorded above; and
 - vii. Annual emissions of PM, NO_x, SO₂, VOM and CO.
- b. Other dryers:
- i. Type of fuels used;
 - ii. Monthly and annual usage of each fuel; and
 - iii. Monthly and annual emissions calculated in accordance with Condition 7.2.12.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of affected feed production unit with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with emission limits in Condition 7.2.6 shall be calculated based on the following emission factors: VOM, NO_x and CO emission rate is no more than 0.15 lb/million Btu for the VOM and NO_x and 0.16 lb/million Btu for the CO; PM and SO₂ emission rate is no more than 0.01 grains/dscf (0.3 lb/ton dried) and 0.7 lb/ton of dried, respectively. These emission factors are valid until the

time when stack test results of May, 2003 testing will be evaluated and new emission factors will be derived and established.

7.3 Unit 3: Gluten Production

7.3.1 Description

Gluten production consists of receiving and storage of flour, mixing the flour with water to make dough, and separation of wet gluten and starch from the dough. Wet gluten is dried and milled before it is packed for shipment to the customer.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 3	Flour Storage Tanks T751 through T756	Baghouse 751
	Flour Surge Tank T781	Baghouse 781
	Gluten Dryer D721	Baghouse 721
	Gluten Dryer D731	Baghouse 731
	Gluten Dryer D741	Baghouse 741
	Gluten Micro Pulverizer PM 721	Baghouse 722
	Gluten Micro Pulverizer PM 731	Baghouse 732
	Gluten Micro Pulverizer PM 741	Baghouses 742A & 742B
	Gluten Tank and Recovery T771	Baghouse 774
	Gluten Tank T772	Baghouse 775
	Gluten Transfer Bag Tank & Packer T775 & Tote Packer	Baghouse 772
	Gluten Truck Tank & Loading T776	Baghouse 773
	Gluten Bag Packer Tank T774 & Bag Packer	Baghouse 771
	Gluten Vacuum System Baghouse	Baghouse 723
	Flour Blender Baghouse	Baghouse 757
	Packer Room Vacuum Baghouse	Baghouse 776

7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected gluten drying and handling system" is an emission unit as described in Conditions 7.3.1 and 7.3.2.
- b. Each affected gluten drying and handling system is subject to 35 IAC 212.321(b)(1), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one

hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 3) [35 IAC 212.321(a)].

- c. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit unless no odor nuisance exists and non-photochemically reactive materials are used [35 IAC 215.301].
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm [35 IAC 214.301].

7.3.4 Non-Applicability of Regulations of Concern

None

7.3.5 Operating Requirements and Work Practices

- a. Gluten dryers are heated by the natural gas as the only fuel.
- b. The throughput of the wheat gluten plant shall not exceed 59,556 tons/year and 1,848 tons/month.
- c. The Permittee shall follow good operating practices for control devices, including periodic inspection, routine maintenance and repair of defects.

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected gluten drying and handling system is subject to the following:

- a. Gluten Dryers D721 & D731 (each)

Pollutant	Lb/hr	T/Yr
PM	2.95	12.9
NO _x	2.0	9.0

These limitations were established in Permit 81050037. These limits ensure that the construction and/or modification addressed in the aforementioned Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically Major Stationary Sources Construction and Modification and Prevention of Significant

Deterioration of Air Quality Regulations (PSD) of 40 CFR 52.21 [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

b. Gluten Dryer D741

Pollutant	Lb/hr	T/yr
PM	See Attachment	See Attachment
NO _x	3.0	13.2

These limitations were established in Permit 94020019. These limits ensure that the construction and/or modification addressed in the aforementioned Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically Major Stationary Sources Construction and Modification and Prevention of Significant Deterioration of Air Quality Regulations (PSD) of 40 CFR 52.21 [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

c. Other gluten drying and handling units

Pollutant	Lb/hr	T/yr
PM	See Attachment	

These limitations were established in Permit 94020019. These limits ensure that the construction and/or modification addressed in the aforementioned Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically Major Stationary Sources Construction and Modification and Prevention of Significant Deterioration of Air Quality Regulations (PSD) of 40 CFR 52.21 [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected gluten drying and handling system to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. Monthly and annual natural gas usage (mmscf/mo and mmscf/yr);
- b. Amount of gluten processed (T/mo and T/yr).
- c. Records of maintenance activities for gluten drying/handling units and associated air pollution control devices.
- d. Monthly and annual emissions calculated in accordance with Condition 7.3.12.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of affected gluten drying and handling system with the permit requirements as follows, pursuant to Section 39.5(7)(f)(iii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

- a. Compliance with the PM/PM₁₀ emission limits of Condition 7.3.3(b) is assured and achieved by the proper operation and maintenance, as required by this

section and the work-practices inherent in operation of the affected gluten drying and handling units.

- b. $PM/PM_{10} \text{ Emissions} = (\text{Air flow, cfm}) \times (\text{Estimated Dust Loading, gr/scf}) \times (1 \text{ lb}/7,000 \text{ gr}) \times (60 \text{ minutes/hr}) \times [100 - (\text{Efficiency, \%})/100]$
- c. Emissions attributed to the natural gas combustion in the gluten dryers shall be calculated based on the following:

Pollutant	Emission Factor (lb/mmscf)
PM	7.6
NO _x	100.0
VOM	5.5
CO	84.0

These are the emission factors for uncontrolled natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, March 1998.

7.4 Unit 4: Starch Production

7.4.1 Description

Starch production begins with receiving wet starch from the gluten process. Wet starch is dried and milled before it is packaged for shipment to the customer.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 4	Starch Dryer D811	Baghouse 811
	Starch Micropulverizer 125R PM 811	Baghouse 812
	Starch Tank 871 & Recovery Baghouse 873	Baghouse 875
	Starch Tank T 872	Baghouse 874
	Starch Tank T 873	Baghouse 876
	Starch Packer Tank T 874	Baghouse 871
	Starch Transfer Tank T 875 & Packer	Baghouse 872
	Bulk Truck Tank T 876, Bulk Loadout & Bag Packer	Baghouse 873
	Starch Storage Tank T 873B with Baghouse	Baghouse 878

7.4.3 Applicability Provisions and Applicable Regulations

- a. An "affected starch drying and handling system" is an emission unit as described in Conditions 7.3.1 and 7.3.2.
- b. Each affected starch drying and handling system is subject to 35 IAC 212.321(b) (1), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 3) [35 IAC 212.321(a)].
- c. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

7.4.4 Non-Applicability of Regulations of Concern

None

7.4.5 Operating Requirements and Work Practices

- a. The Permittee shall follow good operating practices for the associated air pollution control devices, including periodic inspection, routine maintenance and repair of defects.
- b. The Permittee shall operate, maintain, and replace the fabric filters in a manner that assures compliance with the conditions of this Section.
- c. The Permittee shall institute an Inspection and Logging Procedure for all dry control devices (e.g., fabric filters, etc.). As a minimum, this Inspection and Logging Procedure shall include the following on a regularly scheduled basis:
 - i. Routine inspections of the device for proper cleaning, functioning, and cycling, and for the removal of captured dust from the device.
 - ii. Detailed inspections of control devices, fans, and all moving parts for material buildup, wear, and corrosion; including the logging of any broken bags by location in order to identify installation or equipment problems.
- d. Prompt repairs shall be made upon the identification of need either as a result of formal inspections or by other observations.
- e. Total starch throughput shall not exceed 42,000 ton/year and 3,500 ton/month.

7.4.6 Emission Limitations

- a. PM emissions of affected starch drying and handling system shall not exceed the limits established in Attachment 2.

These limitations were established in Construction Permit 94020019. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically Major Stationary Sources Construction and Modification and Prevention of Significant Deterioration of Air Quality Regulations (PSD) of 40 CFR 52.21 [T1].

- b. Nitrogen Oxide emissions from the starch dryer shall not exceed 1 lb/hr and 4.4 tons/yr.

These limitations were established in Construction Permit 94020019. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically Major Stationary Sources Construction and Modification and Prevention of Significant Deterioration of Air Quality Regulations (PSD) of 40 CFR 52.21 [T1].

- c. Compliance with annual limits in the conditions mentioned above shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected starch unit to demonstrate compliance with conditions of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. Total starch production, tons/mo and tons/yr;
- b. Maintenance and repair log for air pollution control equipment; and
- c. PM emissions calculated in accordance with compliance procedure in Condition 7.4.12.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the emission limitations as follows pursuant to Section 39.5(7)(f)(iii) of the Act:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall

include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

To determine compliance with Condition 7.4.3 and 7.4.6, emissions of PM from the affected starch unit shall be calculated based on the following:

$$\text{PM/PM}_{10} \text{ Emissions}^* = (\text{Air Flow, cfm}) \times (\text{Estimated Dust Loading, gr/scf}) \times (1 \text{ lb}/7,000 \text{ gr}) \times (60 \text{ minutes/hr}) \times [1 - (\text{Control Efficiency (\%)} / 100)].$$

7.5 Unit 5: Alcohol Production

7.5.1 Description

The initial step in the alcohol production process is transforming the grain slurry into glucose for fermentation. The fermenters convert simple sugar (glucose) contained in the mash into ethanol and carbon dioxide. The carbon dioxide generated in the reaction is collected through the top of the fermenters and is ducted to the CO₂ Scrubber (SCR451). The CO₂ Scrubber removes 97.5% of the alcohol from the CO₂ stream, recycling the recovered alcohol and scrubbant liquid for further distillation. The scrubbed CO₂ and remaining alcohol are sold to the Liquid Carbonics plant nearby. When fermentation is complete, the "beer" product containing approximately 10% alcohol is sent to the Beer Still. Spent grain mash, now referred to as whole stillage, is removed from the bottom of the Beer Still and sent to Centrifuges, as a raw material for the feed production process. The top stream from the Beer Still, which contains approximately 20% alcohol, is sent to the Rectifier, which uses a distillation process and separates the majority of the water from the alcohol stream producing a 190 proof alcohol with various impurities. The alcohol product stream from the top of the rectifier is sent through either the fuel alcohol process or the beverage alcohol process.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 5	<u>Fermentation</u>	
	Existing Prefermenter Tank (T400)	New Scrubber (SCR405)
	Existing Fermenter Tanks (T410, T415, T420, T425, T430, T435), New Fermenter Tank (T440)	Existing Scrubber (SCR451)
	Existing Beer Well (T450)	Existing Scrubber (SCR451)
	<u>Distillation</u>	Vent Scrubbers SCR501, SCR561

7.5.3 Applicability Provisions and Applicable Regulations

- An "affected alcohol production unit" is either fermentation or distillation emission unit described in Condition 7.5.1 and 7.5.2.
- An affected alcohol production unit is subject to 35 IAC 215.302 that requires a reduction of 85% of

uncontrolled organic material that would be otherwise emitted to the atmosphere.

- c. The affected alcohol production unit (fermentation operations only) is subject to the New Source Performance Standard (NSPS) for Equipment Leaks of volatile organic compounds in the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 60, Subparts A and VV. Requirements of Subpart VV are discussed further in this Section. Requirements of Subpart VV are more stringent than those established in 35 IAC Part 215 Subpart Q and, therefore, supersede requirements of Subpart Q.

- d. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of the CO₂ Scrubber SCR 451, the Permittee is authorized to continue operation of the fermenter tanks in violation of the applicable requirement of 35 IAC 215.302 and conditions of this permit, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

- i. The Permittee shall repair the damaged feature(s) of the CO₂ Scrubber SCR 451 as soon as practicable. This shall be accomplished within 8 hours after a failure is established. This scrubber may be bypassed to protect fermenters from failure, provided the Agency shall be immediately notified by telephone.
- ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.5.9(b) and 7.5.10(a).

7.5.4 Non-Applicability of Regulations of Concern

- a. The affected alcohol production unit is not subject to 40 CFR Part 60 Subpart NNN and RRR based on the exemption of the creation of ethanol by biological synthesis from the scope of these standards.
- b. The fermentation process (as a part of the affected alcohol production unit) is not subject to 40 CFR 60, Subpart VV: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, because any affected facility that has no equipment in VOC service is exempt from 40 CFR 60.482. In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of 40 CFR 60.485(d) specify how to

determine that a piece of equipment is not in VOC service.)

7.5.5 Operating Requirements and Work Practices

- a. Maximum alcohol production shall not exceed the following limits: 9,000,000 gallons/month and 90,000,000 gallons/year.
- b. At all times, the Permittee shall to the extent practicable, maintain and operate affected alcohol production unit in a manner consistent with good air pollution control practice for minimizing emissions. For this purpose the secondary scrubber shall achieve at least 95 percent control efficiency.
- c. The following requirements of 40 CFR Part 60 Subpart VV shall be implemented for distillation operation:
 - i. Pumps in light liquid service (40 CFR 60.482-2);
 - ii. Compressors (40 CFR 60.482-3);
 - iii. Pressure relief devices in gas/vapor service (40 CFR 60.482-4);
 - iv. Sampling connection systems (40 CFR 60.482-5);
 - v. Open-ended valves or lines (40 CFR 60.482-6);
 - vi. Valves in gas/vapor service in light liquid service (40 CFR 60.482-7);
 - vii. Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors (40 CFR 60.482-8);
 - viii. Delay of repair (40 CFR 60.482-9); and
 - ix. Closed vent systems and control devices (40 CFR 60.482-10).

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected alcohol production is subject to the following:

Emissions from the affected alcohol production shall not exceed the following limits:

<u>Emission Unit</u>	<u>VOM Emissions</u>	
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
Prefermenter	1.76	17.52
Tanks*	3.08	30.77 ^a
Loadout*	1.36	13.58 ^b
Distillation	3.55	35.41 ^c
Fermentation	1.16	5.58 ^d
	Total	102.86

* Described in Section 7.6

The above limitations were established in Construction Permit 00090031, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

7.5.7 Testing Requirements

- a. All necessary tests for distillation units shall be conducted in accordance with testing requirements established by 40 CFR 60.485.
- b. In order to demonstrate that the affected fermentation process is not subject to 40 CFR 60 Subpart VV, the Permittee shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:
 - i. Procedures that conform to the general methods in ASTM E-260, E-168, E-169 (incorporated by reference-see 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment [40 CFR 60.485(d)(1)].
 - ii. Organic compounds that are considered by the USEPA to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining

the VOC content of the process fluid [40 CFR 60.485(d)(2)].

iii. Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the USEPA disagrees with the judgment, 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement [40 CFR 60.485(d)(3)].

c. The following methods and procedures shall be used for testing of emissions from Scrubbers 405 and 451, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, and 40 CFR 61, Appendix B, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Volatile Organic Material	USEPA Method 18 or 25, 25A if outlet VOM cont. < 50 ppmv as C non CH ₄

7.5.8 Monitoring Requirements

The Permittee shall install, operate and maintain measurement and monitoring devices for the following parameters on each scrubber:

- a. Scrubbant flow rate (gallons per minute).
- b. Pressure drop.
- c. These monitoring data shall be collected on a daily basis.

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected ethanol distillation unit to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain the following production and operating records for the affected alcohol production process:
 - i. Alcohol production (gallons/month and gallons/year);

- ii. CO₂ production from fermentation (pounds/month and pounds/year);
 - iii. CO₂ sold (pounds/month and pounds/year);
 - iv. CO₂ used for regeneration of dryer beds in CO₂ plants (pounds/month and pounds/year); and
- b. Log of equipment inspection and maintenance.
- c. Log of scrubbant flow rate and pressure drop inspection.
- d. Records of all leak detection activities as identified in 40 CFR 60.486.
- e. The information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10, as required by 40 CFR 60.486(e).
- f. Records of malfunction of the Scrubber SCR451 and duration of it repair.
- g. Monthly and annual VOM emissions from fermentation and distillation operations calculated in accordance with Condition 7.5.12.

7.5.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of affected alcohol production unit with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

- b. The Permittee shall submit semiannual reports to the Illinois EPA as required by 40 CFR 60.487(a), (b), and (c).

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

- a. Compliance with requirements and standards established in 40 CFR Part 60 Subpart VV will be determined by review of records and report, review of performance test results, and inspections using the methods and procedures specified in 40 CFR 60.485.
- b. Compliance with VOM emission limits of Condition 7.5.6 shall be calculated based on the following emission factors and formulas:
 - i. For the purpose of estimating VOM emissions from the fermenter, the following emission factors and formulas shall be used if the scrubber is properly operated:

$$E_{405} = 4 \text{ lb/hr}^*$$

- * This emission rate was calculated using an overall material balance and stream compositions based on plant data at an alcohol production rate equivalent to 90,000,000 gallons/year. Detailed emission calculations and efficiencies of the control device was calculated using a process simulator program: CHEMCAD VS 3.0. This emission rate shall be used unless the stack test required by Condition 1.1.7 provides a higher emission rate, in which case, the stack test value must be used.

- ii. For the purpose of estimating VOM emissions from distillation, if scrubbers are properly operated, established VOM control efficiencies shall be used, e.g., 97.5 percent efficiency for scrubber SCR501.
- iii. For the purpose of estimating VOM emissions from fermentation if the scrubbers are properly operated, the following emission factors and formulas shall be used:

$$E = [(P - S - R) \times V \times (1 - K/100)] / (2000 \text{ lb/ton}) - E_{\text{fermentation}}$$

Where:

P = CO₂ production (pounds).

S = Amount of CO_2 sold (pounds).

R = Amount of CO_2 used for regeneration of dryer beds at CO_2 plants (pounds).

V = VOM content in CO_2 stream to scrubber 451 (1.4365 percent in the absence of a performance test).

K = Removal efficiency of the scrubber (as demonstrated in the performance test).

$E_{\text{fermentation}}$ = VOM emissions of prefermenter

7.6 Unit 6: Ethanol Storage Tanks and Load Out Operations

7.6.1 Description

After processing through distillation, ethanol is transferred to intermediate storage tanks, denaturated, and then load out through barge, rail, and truck bays.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 6	Alcohol Storage Tanks: Tanks ##: 521, 522, 527, 528, 531, 532, 533, 534, 1001, 1002, 1003, 1005, 1006, 1008, 1009, 1010, 1011, 1013, 1014, 1030, 1031, 1032, 1033, 1034, 1036, 1040, 1052-1054, 1055, 1056, 1081, 1082, 1101-1107, 1201-1206, 1302-1312, 1501, 1502, 1522-1524	Floating Roof
	Gasoline Storage Tank: 1051	Internal Floating Roof
	Ethanol Load Out Bays (beverage or fuel)	None

7.6.3 Applicability Provisions and Applicable Regulations

- An "affected ethanol storage and load-out unit" is an emission unit described in Conditions 7.6.1 and 7.6.2.
- No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit unless no odor nuisance exists and non-photochemically reactive materials are used [35 IAC 215.301].
- Emissions of organic material in excess of those permitted by Section 215.301 are allowable if such emissions are controlled by thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water [35 IAC 215.302(a)].
- Ethanol storage tanks, constructed after July 23, 1984, are subject to 40 CFR Part 60, Subpart Kb. Applicable requirements of Subpart Kb are discussed further in this Section.

7.6.4 Non-Applicability of Regulations of Concern

- a. Ethanol (alcohol) storage tanks are not by definition a petroleum liquid storage tanks pursuant to the definition established by USEPA and Illinois EPA. Therefore, ethanol storage tanks constructed before July 23, 1984 are not subject to 40 CFR Part 60, Subparts K and Ka.
- b. Ethanol storage tanks are not subject to 35 IAC 215.121 because the vapor pressure of ethanol is less than 17.24 kPa (2.5 psia).
- c. Storage tanks used for beverage alcohol are not subject to 40 CFR Part 60, Subpart Kb, pursuant to 40 CFR 60.110b(d) (7).

7.6.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall to the extent practicable, maintain and operate affected ethanol storage and load out unit, including control device(s), in a manner consistent with good air pollution control practice for minimizing emissions.
- b. The true vapor pressure of a dehydration agent stored shall not exceed 1.27 psia at 60°F.
- c. The true vapor pressure of denatured alcohol stored shall not exceed 1.5 psia at 60°F.
- d. Loadout of ethanol shall be performed with submerged fill pipes into clean tanks or tanks in normal dedicated service to ethanol.
- e. Requirements for tanks with internal floating roofs, pursuant to 40 CFR 60.112b(1):
 - i. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
 - ii. Each internal floating roof shall be equipped with one of the following closure devices

between the wall of the storage vessel and the edge of the internal floating roof:

- A. A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
 - B. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
 - C. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
- iii. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
 - iv. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
 - v. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

- vi. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- vii. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
- viii. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- ix. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

7.6.6 Emission Limitations

Emissions from the affected storage tanks and load-out operations shall not exceed the following limits:

<u>Emission Unit</u>	<u>VOM Emissions</u>	
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
Tanks	3.08	30.77
Loadout	1.36	13.58

The above limitations were established in Construction Permit 00090031, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

7.6.7 Testing Requirements

Testing of the storage tanks subject to 40 CFR 60, Subpart Kb shall be performed in accordance with testing requirements of 40 CFR 60.113b.

7.6.8 Monitoring Requirements

Records of the tank dimensions and a vapor pressure of liquids stored shall be kept and determined in accordance with 40 CFR 60.116b.

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected ethanol storage and load-out unit to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. Total amount of ethanol transferred and load out by each individual group of load out bays (barge, rail, and truck) in gallons/month and gallons/year.
- b. Amount of ethanol throughput by all tank sin gallons/month and gallon/year.
- c. Vapor pressure of liquids stored and transferred (kPa or psia).
- d. Log of maintenance and repair jobs performed.
- e. Records of the tank dimensions in accordance with 40 CFR 60.116b.
- f. Monthly and annual emissions calculated in accordance with Condition 7.6.12.

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance of affected ethanol storage and load-out unit with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.6.12 Compliance Procedures

- a. Compliance with the emission limits established of Condition 7.6.3(b) is assured and achieved by the proper operation and maintenance, as required by this section and the work-practices inherent in operation of the affected ethanol storage and load out unit.
- b. Monthly and annual VOM emissions from storage tanks shall be calculated based on the TANK program.
- c. Monthly and annual VOM emissions from load out operation shall be calculated based on the standard emissions factors for petroleum/gasoline loading losses established by AP-42, Tables 5.2-1 and 5.2-2.

7.7 Unit 11: Waste Water Treatment Plant

7.7.1 Description

Wastewater from the production facility originating from the cooking, fermentation, distillation, and feed recovery operations flows to an influent sump. The wastewater is then pumped from the sump to a conditioning tank where it is mixed with recycle from the anaerobic digester effluent. The contents of the conditioning tank are mixed and the pH is adjusted by using sodium hydroxide or magnesium hydroxide. Nutrient chemicals are added in the conditioning tank. The conditioned water from the conditioning tank is pumped through heat exchangers for cooling and temperature control to the anaerobic digester. Micronutrients are added to the digester feed water before it enters the digester.

The incoming digester feed water is equally distributed across the bottom of the reactor by a manifold system. As the water flows to the top of the reactor, the biodegradable components are converted into volatile fatty acids by the acid formers and then into methane gas and CO₂ by the methane formers. Methane gas and biomass solids that are generated are separated from the liquid as the effluent flows through the settlers at the top of the anaerobic digester reactor. The effluent not used for recycle in the conditioning tank flows by gravity to the aerobic system for further treatment. The methane gas generated is directed to a flare or is compressed and is used in the process to replace natural gas for drying of feed. Any excess sludge generated would be stored in a storage tank for future use or sent forward to the aerobic system.

The effluent from the anaerobic digester flows forward to the aerobic system. The aerobic system consists of two aeration basins with a total capacity of 1,500,000 gallons. Surface aerators are present to provide the necessary oxygen for the aerobic bacteria. The flow continues forward by gravity to clarifiers where the solids are allowed to settle before recycling back to the aerators. The clarified water overflows the weirs for discharge to the Illinois River.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Unit 7	Conditioning Tank	None
	Aerobic System (aeration basins)	None
	Anaerobic Digester	Flare

7.7.3 Applicability Provisions and Applicable Regulations

- a. The "affected wastewater treatment plant" for the purpose of these unit-specific conditions, is a unit described in Conditions 7.7.1 and 7.7.2.
- b. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm [35 IAC 214.301].
- c. For uncontrolled emissions, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 215.302, 215.305, and 215.304 and the following exception: If no odor nuisance exists this limitation shall apply only to photochemically reactive material.

7.7.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected waste water treatment plant not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected waste water treatment plant does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.
- b. The affected waste water treatment plant is not subject to 40 CFR Part 63 Subpart QQ "National Emission Standards for Surface Impoundments" because no references are made for application of Subpart QQ in any of subpart of 40 CFR Parts 60, 61, or 63 applicable to the affected waste water treatment plant, as specified and required by applicability criteria of 40 CFR 63.940.

7.7.5 Operational and Production Limits and Work Practices

- a. At all times, the Permittee shall, to the extent practicable, maintain and operate basins and digesters, including associated air pollution capture and control equipment, in accordance with written operating procedures that provide for good air pollution control practice for minimizing emissions. At a minimum, these practices shall include the following provisions for operation of the flare:
 - i. The flare shall be operated with a flame present at all times when biogases are not utilized and burned by a feed dryer.

- ii. The presence of a flare pilot flame shall be monitored using a thermocouple or other comparable device to detect the presence of a flame.
- iii. If the pilot flame goes out, the flow of off-gases to the flare shall be discontinued until the pilot flame is restored.

7.7.6 Emission Limitations

None

7.7.7 Testing Requirements

None

7.7.8 Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected wastewater treatment plant to demonstrate compliance with Condition 5.5.1 and Section 7 of this permit, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain a copy of the written operating procedures, required by Condition 7.11.5, which procedures shall be reviewed at least annually and revised as needed.
- b. The Permittee shall maintain an operating log for the control system that at minimum identifies periods of time when the system is not in operation, maintenance and repair activities.
- c. The Permittee shall maintain records of the following items for the affected biogas digester:
 - i. Biogas flow rate, scfm;
 - ii. Hours of operation for the flare (hours/month and hours/year); and
 - iii. Hours of operation when the biogases are utilized by a feed dryer (hours/month and hours/year).
- d. Records of emissions calculated based on the Compliance Procedures of Condition 7.7.12.

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected wastewater treatment plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(iii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

If there is an exceedance of the emission limitations of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

- a. Compliance with the limitations of Condition 7.7.3(b) is assured and achieved by the work-practices inherent in operation of affected wastewater treatment plant.
- b. Calculation of emissions from the waste water treatment plant shall be based on the recordkeeping requirements of Condition 7.7.9 and the USEPA program WATER9.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after September 24, 2003 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA, emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change, and the Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before

commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

- a. Describe the physical or operational change;
- b. Identify the schedule for implementing the physical or operational change;
- c. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
- d. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
- e. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;

- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
 - i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614
 - iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506
 - iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604
- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
- 9.1.2 In particular, this permit does not alter or affect the following:
 - a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
 - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7) (o) (iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12) (b) (iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7) (e) (ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7) (p) (v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by

permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

- ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 PM₁₀ Emission Limits for Certain Operations (as required by Condition 5.11)

Unit Description	Control	PM ₁₀ Concentration, Gr/scf
Conveyor, Old Dump Pit, Legs, Cleaner, Bins	Baghouse 101	0.01
Dust Tank T113	Baghouse 102	0.01
New Dump Pit (Captured)	Baghouse 151	0.01
Concrete Silo (T151)	Baghouse 152	0.01
North Bran Tank (Captured) Unloading Rail Cars (1)	Baghouse 621	0.01
South Bran Tank Unloading Rail Cars (captured) (1)	Baghouse 622	0.01
South Bran Tank Unloading Trucks (captured) (1)	Baghouse 623	0.01
Feed Cooler (Cool 641)	Baghouse 641	0.01
Feed Barn	Baghouse 690	0.01
South Feed Silo (T681)	Baghouse 681	0.01
North Feed Silo (T682)	Baghouse 682A	0.01
North Feed Silo East	Baghouse 682B	0.01
Barge Loadout (captured) & Feed Weigh Belt 681	Baghouse 683	0.01
Feed Dryer 651	Cyclone & Scrubber 651	0.01
Feed Dryer 661	Cyclone & Scrubber 661	0.01
Flour Transfer, Car Fluidizing	Portable Filter Socks	0.01
Flour Storage Tanks T751 through T756	Baghouse 751	0.01
Flour Surge Tank T781	Baghouse 781	0.01
Gluten Dryer D721	Baghouse 721	0.01
Gluten Dryer D731	Baghouse 731	0.01
Gluten Dryer D741	Baghouse 741	0.01
Gluten Micro Pulverizer PM 721	Baghouse 722	0.01
Gluten Micro Pulverizer PM 731	Baghouse 732	0.01
Gluten Micro Pulverizer PM 741	Baghouse 742B	0.01
Gluten Tank T771 & Recovery Baghouse 773	Baghouse 774	0.01
Gluten Tank T772	Baghouse 775	0.01

Unit Description	Control	PM ₁₀ Concentration, Gr/scf
Gluten Transfer Bag Tank & Packer T775 & Tote Packer	Baghouse 772	0.01
Gluten Truck Tank T776 & Loading/Unloading	Baghouse 773	0.01
Gluten Bag Packer Tank T774 & Bag Packer	Baghouse 771	0.01
Starch Dryer D811	Baghouse 811	0.01
Starch Micropulverizer 125R PM811	Baghouse 812	0.01
Starch Tank 871 & Recovery Baghouse 873 (3)	Baghouse 875	0.01
Starch Tank T872 (3)	Baghouse 874	0.01
Starch Tank T873 (3)	Baghouse 876	0.01
Starch Packer Tank T874	Baghouse 871	0.01
Starch Transfer Tank T875 & Packer	Baghouse 872	0.01
Bulk Truck Tank T876, Bulk Loadout & Bag Packer	Baghouse 873	0.01
Weigh Belt, Hammer Mills, Grain Mix Tank	Scrubber 251	0.03
Starch Storage Tank T873B with Baghouse	Baghouse 878	0.01
Unloading Bran from Trucks (2)	Baghouse 624	0.01
Gluten Micro Pulverizer PM 741	Baghouse 742A	0.01
Vacuum System Baghouse	Baghouse 104	0.01
Starch Vacuum System Baghouse	Baghouse 744	0.01
Gluten Vacuum System Baghouse	Baghouse 723	0.01
Flour Blender Baghouse	Baghouse 757	0.01
Packer Room Vacuum Baghouse	Baghouse 776	0.01
Eco-Dryer System - BUR6000	Afterburner	0.015

10.2 Attachment 2 PM Emission Limits for gluten/starch handling operations (Permit #94020019)

Table I

A. Gluten Expansion

<u>Item of New Equipment</u>	Operating Hours	Emissions	
	<u>(Hours/Year)</u>	<u>(Lb/Hour)</u>	<u>(Tons/Yr)</u>
Gluten Dryer D741	8,400	2.04	8.586
Gluten Pulverizer	8,400	0.176	0.739
Gluten to Surge Tank	8,400	0.006	0.029
		Subtotal	9.354
<u>Item of Existing Equipment</u>			
Flour Unloading	4,600	0.07	0.166
Flour to Process	8,400	0.04	0.151
Gluten to Storage	8,400	0.27	0.115
Gluten Packaging			0.000
Gluten Bulk Loadout	1,456	0.026	0.019
Flour Car Fluidizing	4,600	0.015	0.035
Flour Tank Fluidizing	8,400	0.01	0.043
		Total	9.883

B. Starch Plant

<u>Item of Equipment</u>	Operating Hours	Emissions	
	<u>(Hours/Year)</u>	<u>(Lb/Hour)</u>	<u>(Tons/Yr)</u>
Starch Dryer	8,400	0.77	3.263
Starch Pulverizer	8,400	0.278	1.166
Starch Recovery	5,000	0.068	0.017
Starch Tank Fluidizing	5,000	0.005	0.013
Starch to Storage	8,400	0.02	0.086
Starch Packaging	5,000	0.02	0.051
Packer Hoods	5,000	0.17	0.437
Starch Bulk Loadout	400	0.025	0.005
Tote Bag Filler	832	0.026	0.011
		Total	5.050

Table II

Wheat Gluten Plant - Change in Particulate Matter Emissions

	Existing Emissions (Tons/Year)	Maximum Future Emissions (Tons/Year)
Flour Unloading & Fluidizing	0.94	1.143
Flour to Process	0.07	0.22
Gluten Dryer	0.0 (New)	8.59
Gluten Pulverizer	0.0 (New)	0.93
Gluten to Storage	0.14	0.12
Gluten Packaging	0.22	0.22
Gluten Bulk Loadout	0.07	0.026
Gluten to Surge Tank	0.0 (New)	0.029
Flour Car Fluidizing	2.64	2.675
Raymond Dryer D-701	3.77	3.77
Bar-Murphy Dryer D-702	12.9	12.9
Bar-Murphy Dryer D-703	12.9	12.9
Entoleten Mill	0.22	0.22
Micropulverizer 1	1.3	1.3
Micropulverizer 2	1.3	1.3
Totals	36.47	46.3
	Net Increase	9.9

10.3 Attachment 3 Allowable Emissions of Particulate Matter

Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. The emissions of particulate matter into the atmosphere in any one hour period from the affected coating lines shall not exceed the allowable emission rates specified in the following equation:

$$E = A(P)^B$$

where:

P = process weight rate;

E = allowable emission rate; and,

- i. For process weight rates of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

- ii. For process weight rates in excess of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

- c. Limits for Process Emission Units for which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321(c)]:

<u>Metric</u>		<u>English</u>	
P	E	P	E
<u>Mg/hr</u>	<u>kg/hr</u>	<u>T/hr</u>	<u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

10.4 Attachment 4 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.5 Attachment 5 Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.
2. Minor Permit Modification
 - Do not violate any applicable requirement;
 - Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
 - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA;
- Are not required to be processed as a significant permit modification; and
- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	ID number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Township name:	7. County:	8. ID number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents	
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.
	<input type="checkbox"/> Yes <input type="checkbox"/> No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature:	
BY:	
_____	_____
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
_____	_____/_____/_____
TYPED OR PRINTED NAME OF SIGNATORY	DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.7 Attachment 7 Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.
3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.
4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.
5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
6. Information addressing any outstanding transfer agreement pursuant to the ERMS.
7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

- b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.
8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.
9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

AB:psj